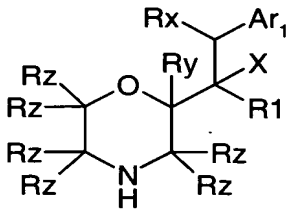
Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (currently amended): A compound of formula (I)



(I)

wherein,

X is OH, C1-C4 alkoxy, NH_2 or NH(C1-C4 alkyl);

Rx is H or C1-C4 alkyl;

Ry is H or C1-C4 alkyl;

each Rz group is independently H or C1-C4 alkyl, with the proviso that not more than 3 Rz groups may be C1-C4 alkyl;

R1 is C1-C6 alkyl ~~(~~optionally substituted with 1, 2 or 3 halogen atoms and/or with 1 substituent selected from the group consisting of C1-C4 alkylthio ~~(~~optionally substituted with 1, 2 or 3 fluorine atoms~~)~~, C1-C4 alkoxy ~~(~~optionally substituted with 1, 2 or 3 fluorine atoms~~)~~, C3-C6 cycloalkoxy, C1-C4 alkylsulfonyl, cyano, -CO-O(C1-C2 alkyl), -O-CO-(C1-C2 alkyl) and hydroxy~~)~~; C2-C6 alkenyl ~~(~~optionally substituted with 1, 2 or 3 halogen atoms~~)~~; C3-C6 cycloalkyl ~~(~~optionally substituted with 1, 2 or 3 halogen atoms and/or with 1 substituent selected from the group consisting of C1-C4 alkoxy and hydroxyl~~,)~~ wherein one C-C bond within the cycloalkyl moiety is optionally substituted by an O-C, S-C or C=C bond; C4-C7 cycloalkylalkyl ~~(~~optionally substituted with 1, 2 or 3 halogen atoms and/or with 1 substituent selected from the group consisting of C1-C4 alkoxy and hydroxyl~~,)~~ wherein one C-C bond within the cycloalkyl moiety is optionally substituted by an O-C, S-C or C=C bond; or CH_2Ar2; and

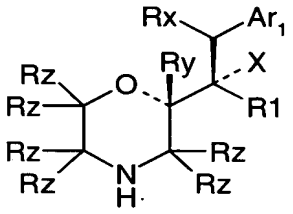
Ar1 and Ar2 are each independently a phenyl ring or a 5- or 6-membered heteroaryl ring, each of which is optionally substituted with 1, 2 or 3 substituents ~~(~~depending upon the number of available substitution positions~~,)~~ each independently selected from the group

consisting of C1-C4 alkyl ~~(~~optionally substituted with 1, 2 or 3 halogen atoms~~)~~, C1-C4 alkoxy ~~(~~optionally substituted with 1, 2 or 3 halogen atoms~~)~~, C1-C4 alkylthio ~~(~~optionally substituted with 1, 2 or 3 halogen atoms~~)~~, -CO-O(C1-C4 alkyl), cyano, -NRR, -CONRR, halo, and hydroxyl, and/or with 1 substituent selected from the group consisting of pyridyl, thiophenyl, phenyl, benzyl, and phenoxy, each of which is optionally ring-substituted with 1, 2 or 3 substituents each independently selected from the group consisting of halogen, C1-C4 alkyl ~~(~~optionally substituted with 1, 2 or 3 halogen atoms~~)~~, C1-C4 alkoxy ~~(~~optionally substituted with 1, 2 or 3 halogen atoms~~)~~, carboxy, nitro, hydroxy, cyano, -NRR, -CONRR, SO_2NRR, and SO_2R; and

each R is independently H or C1-C4 alkyl;

or a pharmaceutically acceptable salt thereof.

2. (currently amended): A compound according to claim 1 of formula (II)



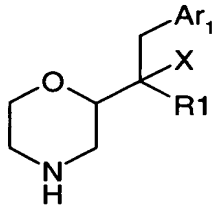
(II)

wherein, X, Rx, Ry, Rz, R1 and Ar1 are as defined for formula (I) in claim 1; or a pharmaceutically acceptable salt thereof.

3. (currently amended): A compound as claimed in ~~any preceding claim or claim 30~~ claim 1 or 2, wherein X is OH.

4 -13. (cancelled)

14. (currently amended): A compound according to claim 1 of formula (III)

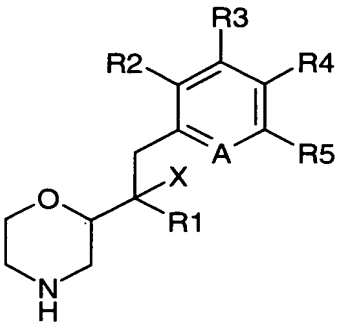


(III)

wherein, X, R1 and Ar1 are as defined for formula (I) in claim1; or a pharmaceutically acceptable salt thereof.

15. (currently amended): A compound according to claim 14 wherein:
X is OH or NH_2;
R1 is C1-C6 alkyl (optionally substituted with 1, 2 or 3 halogen atoms and/or with 1 substituent selected from the group consisting of C1-C4 alkylthio (optionally substituted with 1, 2 or 3 fluorine atoms), C1-C4 alkoxy (optionally substituted with 1, 2 or 3 fluorine atoms), C3-C6 cycloalkoxy, C1-C4 alkylsulfonyl, cyano, -CO-O(C1-C2 alkyl), -O-CO-(C1-C2 alkyl), and hydroxy); C3-C6 cycloalkyl (optionally substituted with 1, 2 or 3 halogen atoms and/or with 1 substituent selected from the group consisting of C1-C4 alkoxy and hydroxyl,) wherein one C-C bond within the cycloalkyl moiety is optionally substituted by an O-C, S-C or C=C bond; or CH_2Ar2 wherein Ar2 is a phenyl ring or a pyridyl ~~(preferably 2-pyridyl)~~ ring, each of which may be substituted with 1, 2 or 3 substituents each independently selected from the group consisting of C1-C4 alkyl (optionally substituted with 1, 2 or 3 halogen atoms), C1-C4 alkoxy (optionally substituted with 1, 2 or 3 halogen atoms), C1-C4 alkylthio (optionally substituted with 1, 2 or 3 halogen atoms), halo, and hydroxy; and
Ar1 is a phenyl ring or a 5- or 6-membered heteroaryl ring;, each of which is substituted in the *ortho* position with a substituent selected from the group consisting of C1-C4 alkyl (optionally substituted with 1, 2 or 3 halogen atoms), C1-C4 alkoxy (optionally substituted with 1, 2 or 3 halogen atoms), C1-C4 alkylthio (optionally substituted with 1, 2 or 3 halogen atoms), -CO-O(C1-C4 alkyl), cyano, -NRR, -CONRR, halo, hydroxy, pyridyl, thiophenyl, phenyl, benzyl, and phenoxy, each of which *ortho* substituents is optionally ring-substituted, (where a ring is present,) with 1, 2 or 3 substituents each independently selected from the group consisting of halogen, C1-C4 alkyl (optionally substituted with 1, 2 or 3 halogen atoms), C1-C4 alkoxy (optionally substituted with 1, 2 or 3 halogen atoms), carboxy, nitro, hydroxy, cyano, -NRR,
-CONRR, SO_2NRR, and SO_2R; and each of which is, (in addition to *ortho* substitution,) optionally further substituted with 1 or 2 substituents each independently selected from the group consisting of C1-C4 alkyl (optionally substituted with 1, 2 or 3 halogen atoms), C1-C4 alkoxy (optionally substituted with 1, 2 or 3 halogen atoms), C1-C4 alkylthio (optionally substituted with 1, 2 or 3 halogen atoms), -CO-O(C1-C4 alkyl), cyano, -NRR, -CONRR, halo, and hydroxy; or a pharmaceutically acceptable salt thereof.

16. (currently amended): A compound according to claim 15 of formula (IV)



(IV)

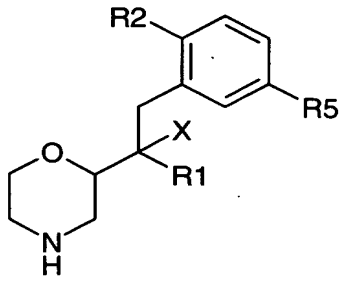
wherein,

X is OH or NH_2;

R1 is C1-C6 alkyl (optionally substituted with 1, 2 or 3 halogen atoms and/or with 1 substituent selected from the group consisting of C1-C4 alkoxy (optionally substituted with 1, 2 or 3 fluorine atoms), cyano, and hydroxy); C3-C6 cycloalkyl (optionally substituted with 1, 2 or 3 halogen atoms and/or with 1 substituent selected from the group consisting of C1-C4 alkoxy and hydroxyl,) wherein one C-C bond within the cycloalkyl moiety is optionally substituted by an O-C bond; or CH_2Ar2 wherein Ar2 is a phenyl ring optionally substituted with 1, 2 or 3 substituents each independently selected from C1-C4 alkyl (optionally substituted with 1, 2 or 3 halogen atoms), C1-C4 alkoxy (optionally substituted with 1, 2 or 3 halogen atoms), C1-C4 alkylthio (optionally substituted with 1, 2 or 3 halogen atoms), halo, and hydroxy;

A is N or CR6 ~~(preferably CR6)~~; R2 is C1-C4 alkyl (optionally substituted with 1, 2 or 3 halogen atoms), C1-C4 alkoxy (optionally substituted with 1, 2 or 3 halogen atoms), C1-C4 alkylthio (optionally substituted with 1, 2 or 3 halogen atoms), halo, hydroxy, pyridyl, thiophenyl, phenyl (optionally substituted with 1, 2 or 3 substituents each independently selected from the group consisting of halogen, C1-C4 alkyl (optionally substituted with 1, 2 or 3 halogen atoms), or C1-C4 alkoxy (optionally substituted with 1, 2 or 3 halogen atoms,)) or phenoxy (optionally substituted with 1, 2 or 3 halogen atoms); R3 is H; R4 is H; R5 is H, C1-C4 alkyl (optionally substituted with 1, 2 or 3 halogen atoms), C1-C4 alkoxy (optionally substituted with 1, 2 or 3 halogen atoms), C1-C4 alkylthio (optionally substituted with 1, 2 or 3 halogen atoms), halo, or hydroxy; and R6, (if present,) is H; or a pharmaceutically acceptable salt thereof.

17. (currently amended): A compound according to claim 16 of formula (V)



(V)

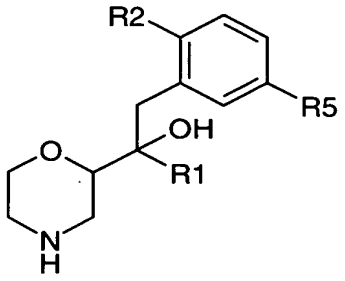
wherein,

X is OH or NH_2;

R1 is C1-C6 alkyl (optionally substituted with 1, 2 or 3 fluorine atoms), C3-C6 cycloalkyl wherein one C-C bond within the cycloalkyl moiety is optionally substituted by an O-C bond or CH_2Ar2 wherein Ar2 is a phenyl ring optionally substituted with 1 or 2 substituents each independently selected from the group consisting of C1-C4 alkyl (optionally substituted with 1, 2 or 3 halogen atoms), C1-C4 alkoxy (optionally substituted with 1, 2 or 3 halogen atoms), halo, and hydroxy;

R2 is C1-C4 alkyl (optionally substituted with 1, 2 or 3 fluorine atoms), C1-C4 alkoxy (optionally substituted with 1, 2 or 3 fluorine atoms,) or phenyl (optionally substituted with 1, 2 or 3 fluorine atoms); and R5 is H or F; or a pharmaceutically acceptable salt thereof.

18. (currently amended): A compound according to claim 17 of formula (VI)



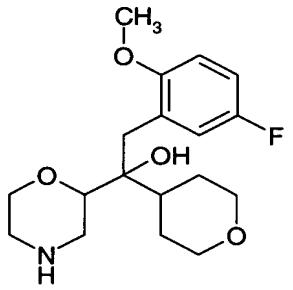
(VI)

wherein,

R1 is C1-C6 alkyl (optionally substituted with 1, 2 or 3 fluorine atoms,) or C3-C6 cycloalkyl wherein one C-C bond within the cycloalkyl moiety is optionally substituted by an O-C bond;

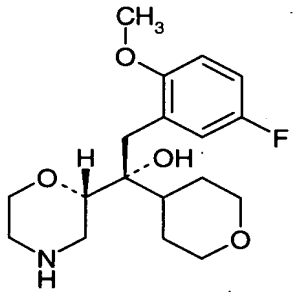
R2 is C1-C4 alkyl ~~(~~optionally substituted with 1, 2 or 3 fluorine atoms~~)~~, C1-C4 alkoxy ~~(~~optionally substituted with 1, 2 or 3 fluorine atoms~~,)~~ or phenyl ~~(~~optionally substituted with 1, 2 or 3 fluorine atoms~~)~~; and R5 is H or F; or a pharmaceutically acceptable salt thereof.

19. (original): A compound of the formula



or a pharmaceutically acceptable salt thereof.

20. (original): A compound of the formula



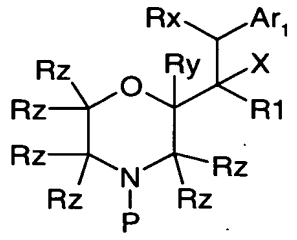
or a pharmaceutically acceptable salt thereof.

21. (currently amended): The hydrochloride salt of a compound according to claim 20 ~~or claim 21~~.

22. (currently amended): A pharmaceutical composition, comprising a compound <u>according to claim 1,</u> ~~as claimed in any one of claims 1 to 21, except when dependent upon any one of claims 30 to 32,~~ or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable diluent, excipient or carrier.

23 - 29. (cancelled)

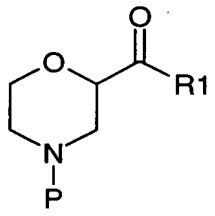
30. (original): A compound of the formula (XIV)



(XIV)

wherein P represents an N-protecting group and all other variables are as defined for formula (I) in claim 1, or a salt thereof.

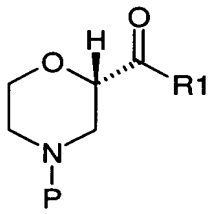
31. (currently amended): A compound of the formula (XIII)



(XIII)

wherein P represents an N-protecting group and ~~all other variables are as defined for formula (I) in claim 1~~ R1 is a tetrahydro-2H-pyran-4-yl group, or a salt thereof.

32. (currently amended): A compound of the formula (XIII)b



(XIII)b

wherein P represents an N-protecting group and ~~all other variables are as defined for formula (I) in claim 1~~ R1 is a tetrahydro-2H-pyran-4-yl group, or a salt thereof.

33. (cancelled)

34. (cancelled)

35. (new): The hydrochloride salt of a compound according to claim 19.

36. (new): A pharmaceutical composition, comprising a compound according to claim 20, or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable diluent, excipient or carrier.

37. (new): The pharmaceutical composition of claim 36, where said pharmaceutically acceptable salt is a hydrochloride salt.

38. (new): A method for treating attention-deficit hyperactivity disorder, a cognitive disorder, conduct disorder, oppositional defiant disorder, or depression, comprising administering to a patient in need thereof an effective amount of a compound of claim 1, or a pharmaceutically acceptable salt thereof.

39. (new): A method for treating attention-deficit hyperactivity disorder, a cognitive disorder, conduct disorder, oppositional defiant disorder, or depression, comprising administering to a patient in need thereof an effective amount of a compound of claim 20, or a pharmaceutically acceptable salt thereof.

40. (new): The method of claim 39, wherein said pharmaceutically acceptable salt is a hydrochloride salt.